

CLAIMS

1. A surface treatment agent, wherein, when a fiber for carpet
is treated with the surface treatment agent, the treated fiber
5 has following characteristics (1) and (2):

(1) a stain block property of at least 8, in a stain block
examination according to AATCC-TM-175-1993; and

(2) a Knoop hardness (KH) of the surface treatment agent
of at least 5.

10 2. A surface treatment agent comprising:

(A) a metal alkoxide;

(B) a fluorine-containing compound containing a
functional group reactive with the metal alkoxide; and

15 (C) a reactive group-containing polymer having a reactive
group reactive with a substrate to be treated.

3. The surface treatment agent according to Claim 2, wherein
a number of alkoxy groups in the metal alkoxide is from 1 to
20 12.

4. The surface treatment agent according to Claim 2, wherein
a metal in the metal alkoxide (A) is selected from the group
consisting of Si, Ti, Al, Zr, Sn and Fe.

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5. The surface treatment agent according to Claim 2, wherein the functional group in the fluorine-containing compound (B) is a reactive group selected from the group consisting of a carboxyl group or salt thereof, a sulfonic acid group or salt thereof, a hydroxy group, an epoxy group, a phosphoric group, an alkoxy silane group, a halogenated silyl group, an isocyanate group and a blocked isocyanate group.

6. The surface treatment agent according to Claim 2, wherein the reactive groups in the reactive group-containing polymer (C) are the reactive groups selected from the group consisting of a carboxyl group or a salt thereof, a hydroxy group, an epoxy group, a phosphoric group, an alkoxy silane group, an imine group, a sulfonic group, an amino group, an isocyanate group and a blocked isocyanate group.

7. The surface treatment agent according to Claim 2, wherein the reactive group-containing polymer (C) is a polymer having:

(i) a reactive group selected from the group consisting of a carboxyl group or a salt thereof, a hydroxy group, an epoxy group, a phosphoric group, an alkoxy silane group, an imine group, a sulfonic group, an amino group, an isocyanate group and a blocked isocyanate group; and

(ii) a fluoroalkyl group.

8. The surface treatment agent according to Claim 2, wherein the substrate to be treated is one selected from the group consisting of wood, metal, stone, plastics, concrete and glass.

5 9. An organic-inorganic hybrid material comprising:

(A) a metal alkoxide,

(B) a fluorine-containing compound having a functional group reactive with the metal alkoxide; and

10 (C) a reactive group-containing polymer having a reactive group reactive with a substrate to be treated.